National Institute of Environmental Health Sciences

GA2LEN skin test study I: GALEN harmonization of skin prick testing: Novel sensitization patterns for inhalant allergens in Europe

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Abstract:

Background: Skin prick testing is the standard for diagnosing IgE-mediated allergies. However, different allergen extracts and different testing procedures have been applied by European allergy centres. Thus, it has been difficult to compare results from different centres or studies across Europe. It was, therefore, crucial to standardize and harmonize procedures in allergy diagnosis and treatment within Europe. Aims: The Global Asthma and Allergy European Network (GALEN), with partners and collaborating centres across Europe, was in a unique position to take on this task. The current study is the first approach to implement a standardized procedure for skin prick testing in allergies against inhalant allergens with a standardized pan-European allergen panel. Methods: The study population consisted of patients who were referred to one of the 17 participating centres in 14 European countries (n Euro Surveillance (Bulletin Europeen Sur Les Maladies Transmissibles; European Communicable Disease Bulletin) 3034, median age Euro Surveillance (Bulletin Europeen Sur Les Maladies Transmissibles; European Communicable Disease Bulletin) 33 years). Skin prick testing and evaluation was performed with the same 18 allergens in a standardized procedure across all centres. Results: The study clearly shows that many allergens previously regarded as untypical for some regions in Europe have been underestimated. This could partly be related to changes in mobility of patients, vegetation or climate in Europe. Conclusion: The results of this large pan-European study demonstrate for the first time sensitization patterns for different inhalant allergens in patients across Europe. The standardized skin prick test with the standardized allergen battery should be recommended for clinical use and research. Further EU-wide monitoring of sensitization patterns is urgently needed.

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Unspecified Exposure

Geographic Feature: ☑

resource focuses on specific type of geography

General Geographical Feature

Geographic Location: ☑

resource focuses on specific location

Non-United States

Non-United States: Europe

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Respiratory Effect

Respiratory Effect: Upper Respiratory Allergy

Resource Type: ☑

format or standard characteristic of resource

Research Article, Research Article

Timescale: ☑

time period studied

Time Scale Unspecified